



METHOD FOR STABLE ESTIMATION OF ANISOTROPIC PARAMETERS FOR P-WAVE PRESTACK IMAGING

Cross-reference to related applications

Not applicable.

Statement regarding federally sponsored research or development

Not applicable.

Background of Invention

Field of the Invention

- OK to enter sub-specification
TJL
8/15/05.*
- [0001] The invention relates generally to the field of seismic data processing methods. More specifically, the invention relates to methods for estimating seismic compressional wave anisotropy in the velocity for use in pre-stack seismic imaging.

Background Art

- [0002] Seismic surveying is used to evaluate structures of, compositions of, and fluid content of subsurface earth formations. A particular application for seismic surveying is to infer the presence of useful materials, such as petroleum, in the subsurface earth formations. Generally, seismic surveying includes deploying an array of seismic sensors at or near the earth's surface, and deploying a seismic energy source near the sensors also at or near the surface. The seismic energy source is actuated and seismic energy emanates from the source, traveling generally downwardly through the subsurface until it reaches one or more acoustic impedance boundaries. Seismic energy is reflected from the one or more impedance boundaries, where it then travels upwardly until being detected by one or more of the sensors. Structure and composition of the subsurface is inferred from the travel time of the seismic energy, and the amplitude and phase of the